

Date: March 15th, 2010

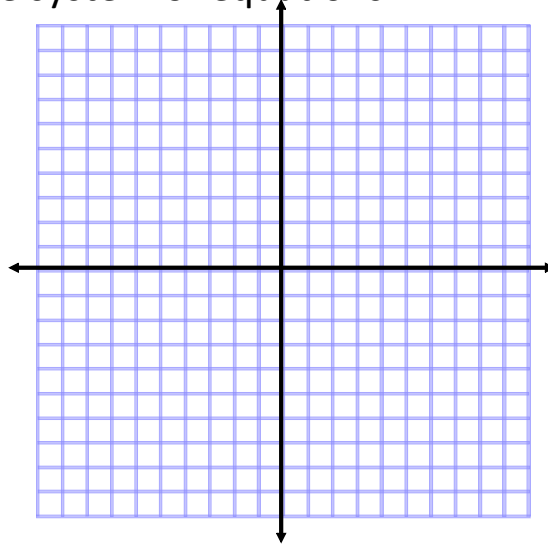
Title: 5.1 Solving Systems part 2

Objective: To solve a system of equations by graphing.

IN: Find the solution to the system of equations:

$$y = \frac{1}{3}x + 1$$

$$y = -\frac{4}{3}x - 4$$



Given the system of equations, determine if the point given is a solution.

1. (4,1)

$$x + 2y = 6$$

$$3x + y = 11$$

2. (-2,1)

$$5x - 2y = -12$$

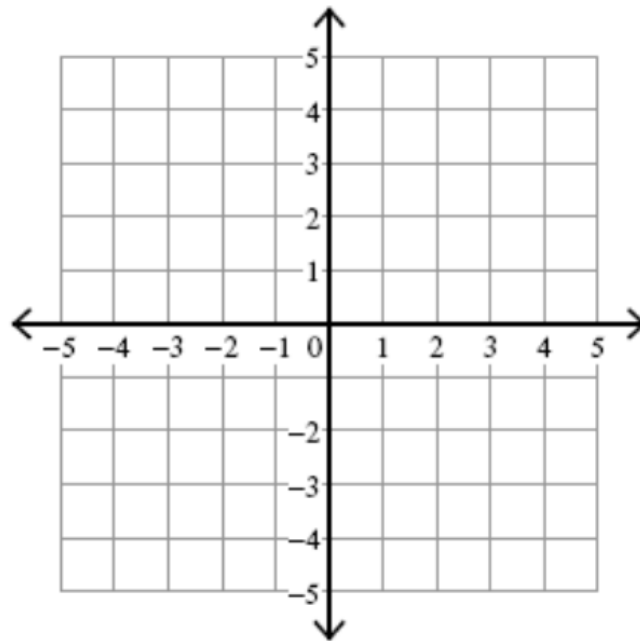
$$x + 3y = 1$$

PULL

PULL

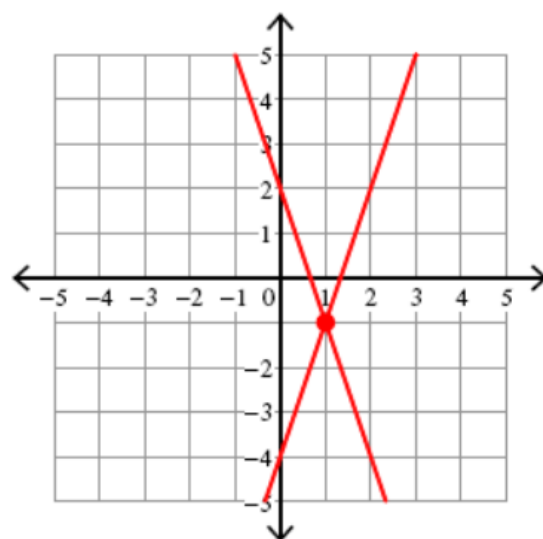
$$1) \ y = 3x - 4$$

$$y = -3x + 2$$



$$1) \ y = 3x - 4$$

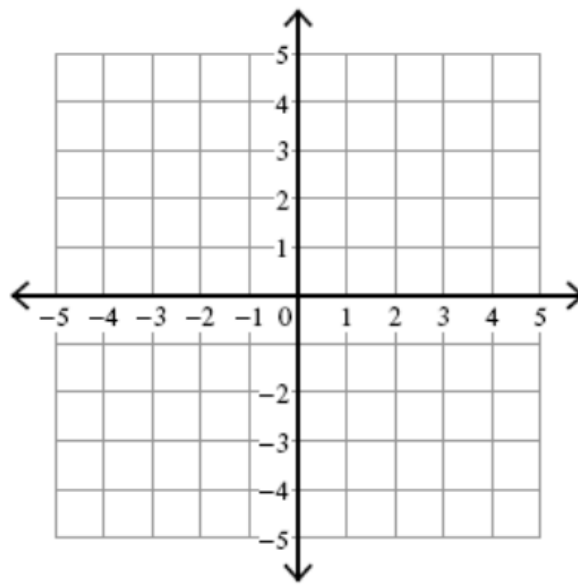
$$y = -3x + 2$$



$(1, -1)$

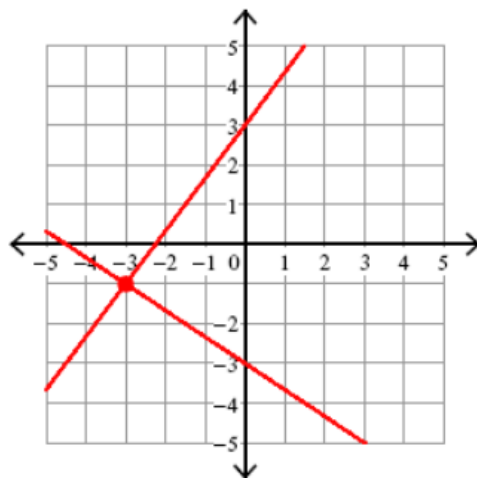
$$2) \ y = \frac{4}{3}x + 3$$

$$y = -\frac{2}{3}x - 3$$



$$2) \ y = \frac{4}{3}x + 3$$

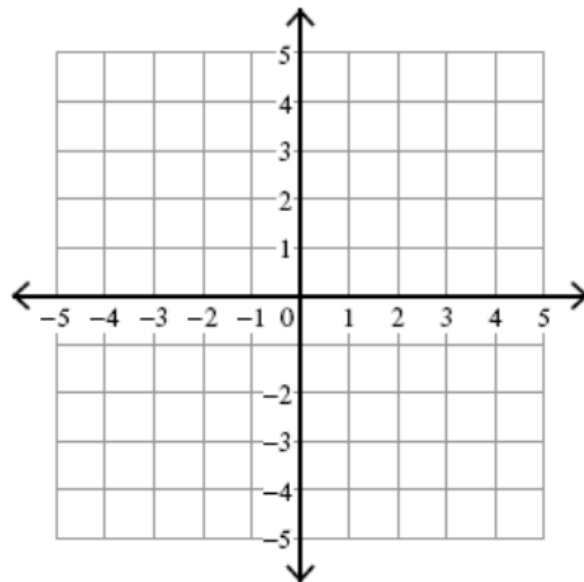
$$y = -\frac{2}{3}x - 3$$



$(-3, -1)$

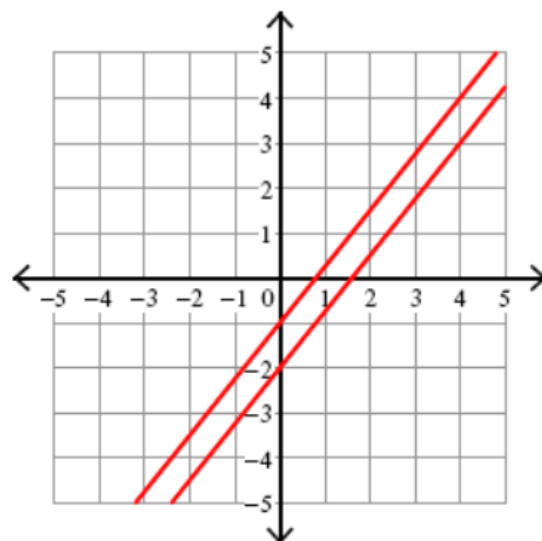
$$3) \ y = \frac{5}{4}x - 2$$

$$y = \frac{5}{4}x - 1$$



$$3) \ y = \frac{5}{4}x - 2$$

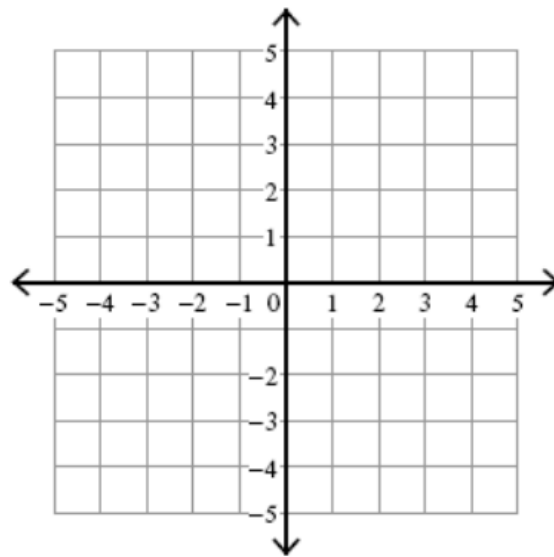
$$y = \frac{5}{4}x - 1$$



No solution

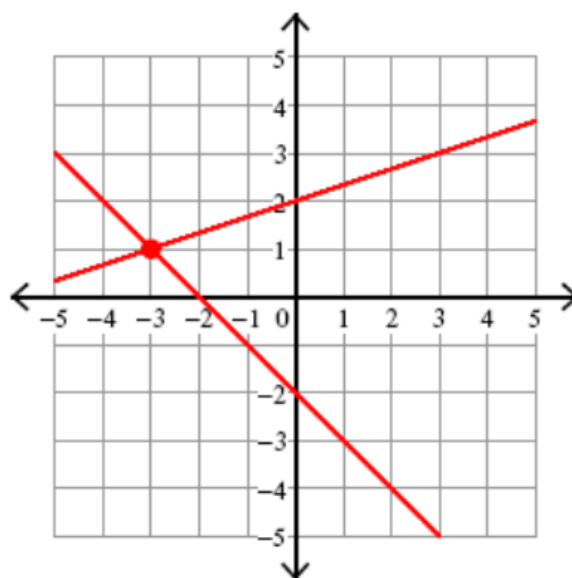
$$4) \ y = \frac{1}{3}x + 2$$

$$y = -x - 2$$



$$4) \ y = \frac{1}{3}x + 2$$

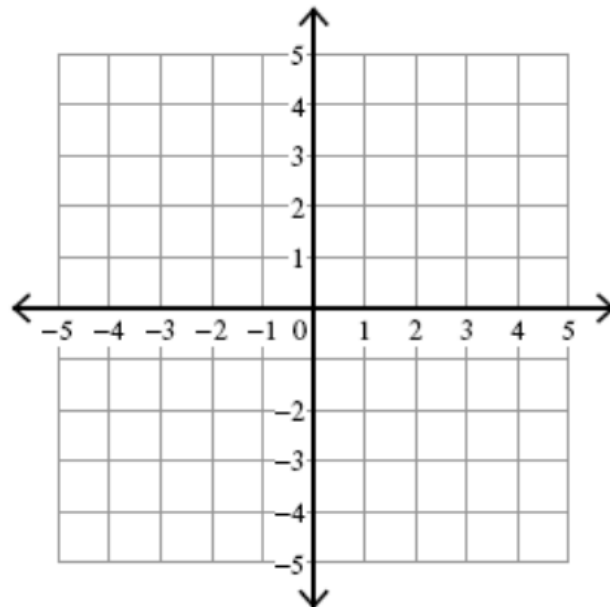
$$y = -x - 2$$



$(-3, 1)$

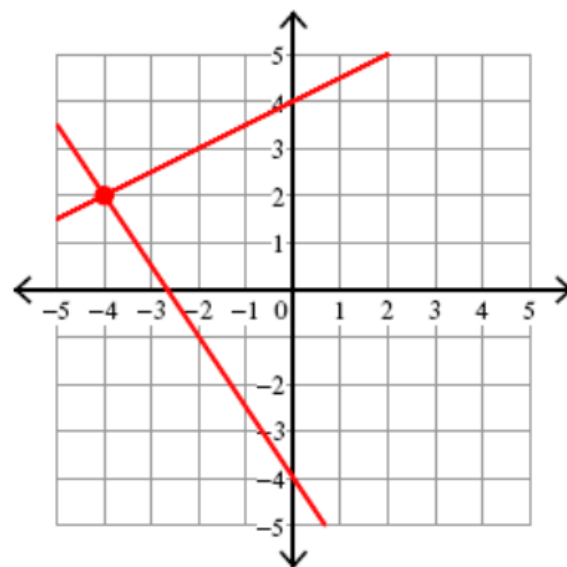
$$5) \ y = -\frac{3}{2}x - 4$$

$$y = \frac{1}{2}x + 4$$



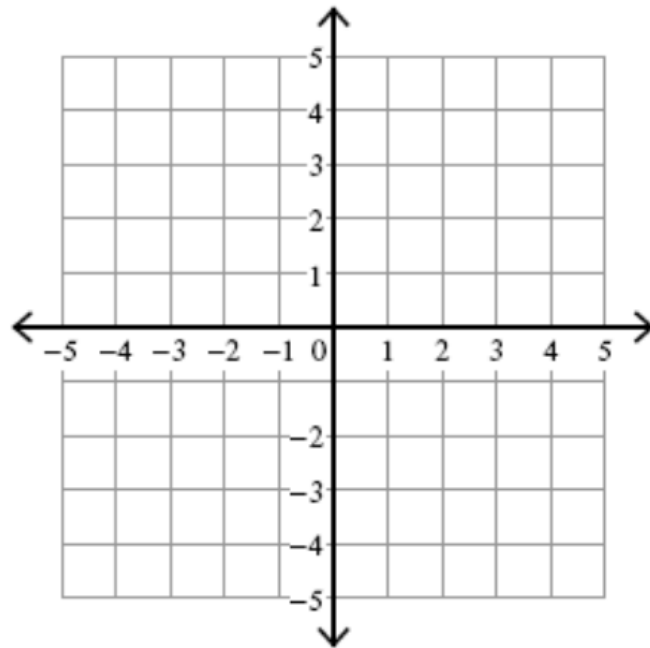
$$5) \ y = -\frac{3}{2}x - 4$$

$$y = \frac{1}{2}x + 4$$

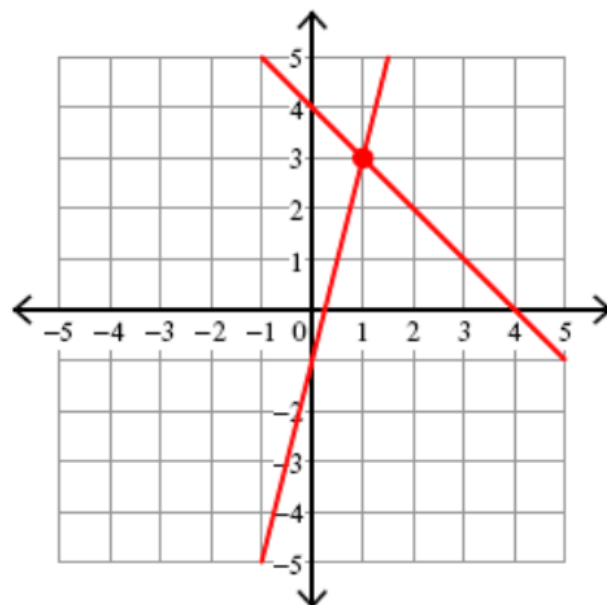


$(-4, 2)$

6) $y = 4x - 1$
 $y = -x + 4$



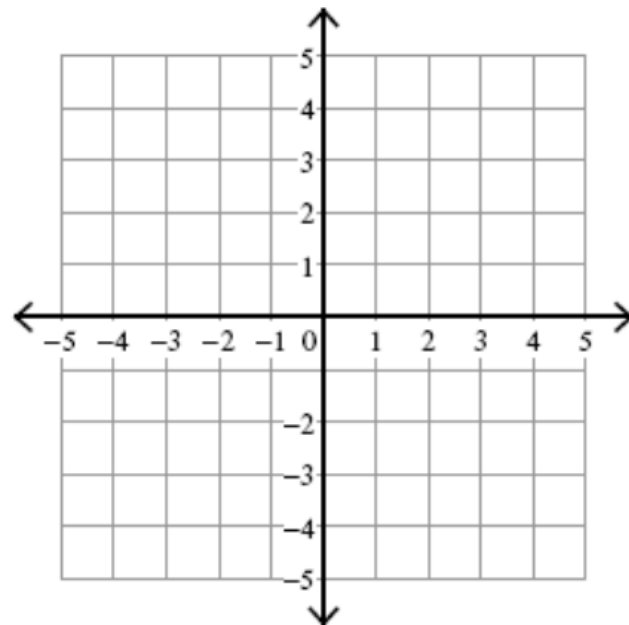
6) $y = 4x - 1$
 $y = -x + 4$



(1, 3)

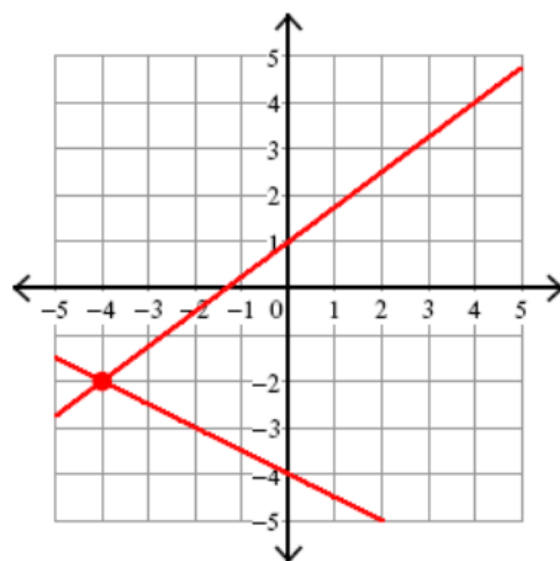
$$7) y = \frac{3}{4}x + 1$$

$$y = -\frac{1}{2}x - 4$$



$$7) y = \frac{3}{4}x + 1$$

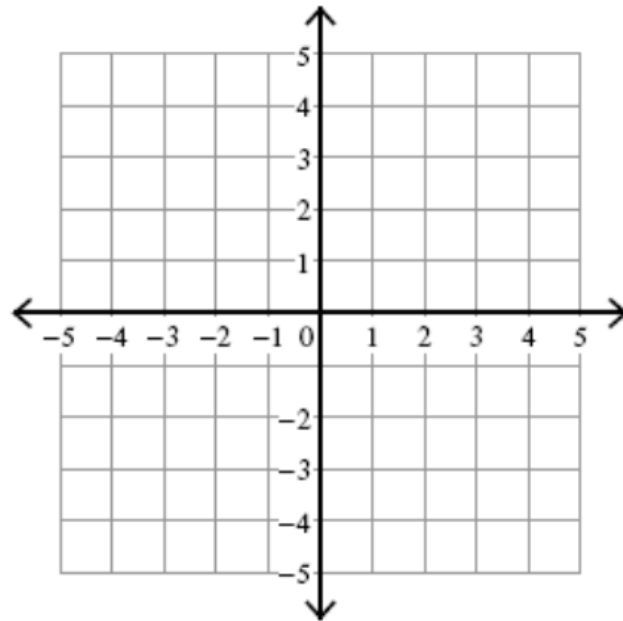
$$y = -\frac{1}{2}x - 4$$



$(-4, -2)$

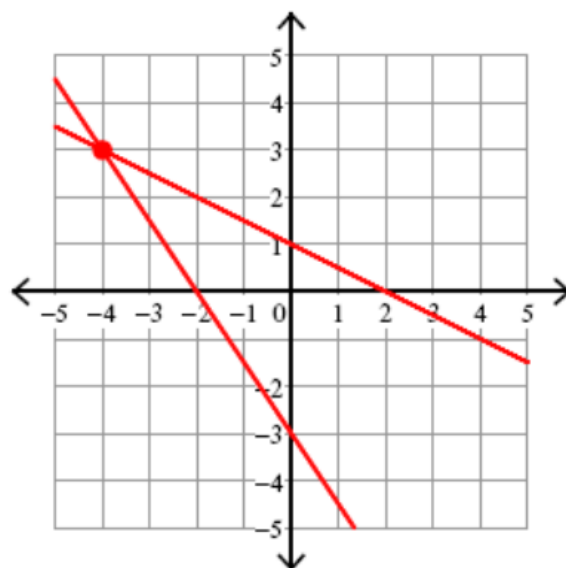
$$8) \ y = -\frac{3}{2}x - 3$$

$$y = -\frac{1}{2}x + 1$$



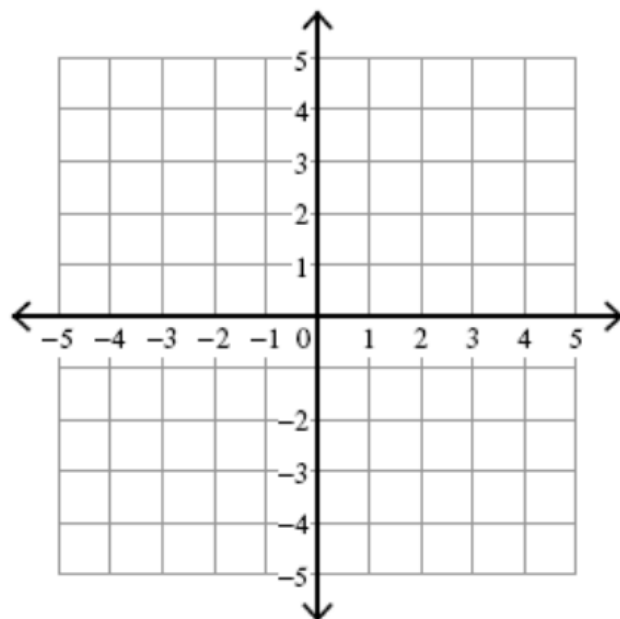
$$8) \ y = -\frac{3}{2}x - 3$$

$$y = -\frac{1}{2}x + 1$$

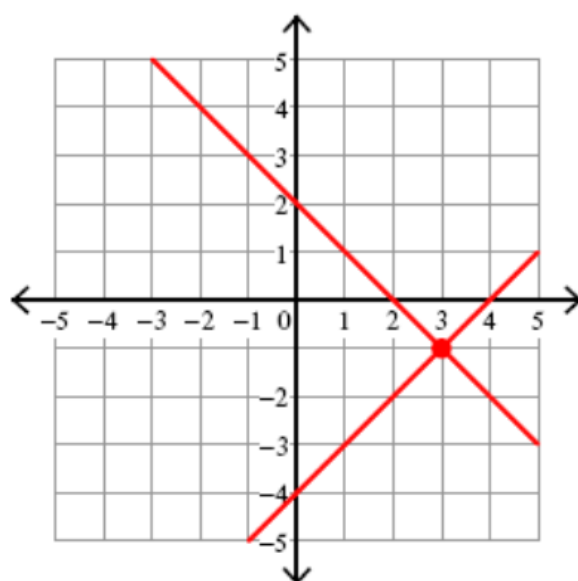


$(-4, 3)$

9) $y = x - 4$
 $y = -x + 2$

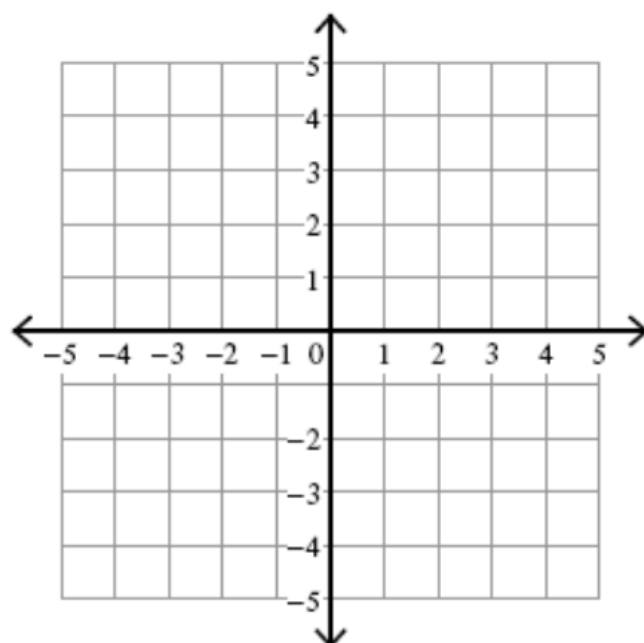


9) $y = x - 4$
 $y = -x + 2$

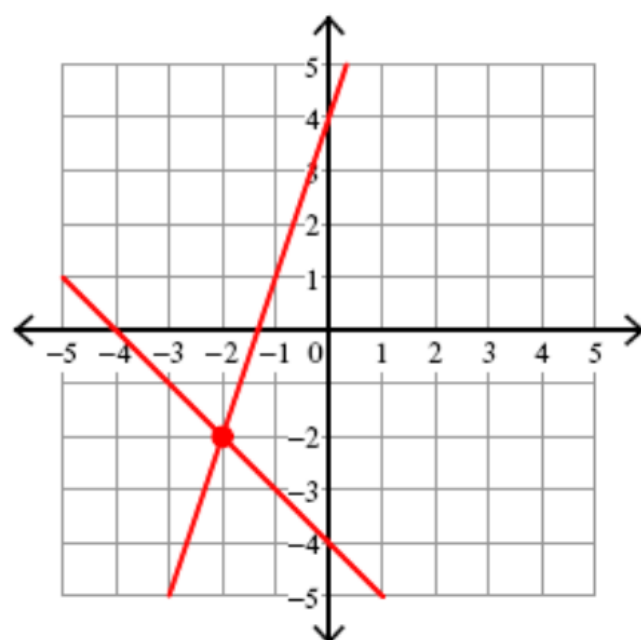


$(3, -1)$

10) $y = 3x + 4$
 $y = -x - 4$



10) $y = 3x + 4$
 $y = -x - 4$



$(-2, -2)$

QTY:

Is the point (2,1) a solution for

$$2x + 3y = 7$$

$$3x - y = 5 ?$$

Summary:

When does a system of equations have one solution?

A system of equations has one solution when...

When does a system of equations have no solutions?

When does a system of equations have more than one solution?